DETAILED ACTION

1. This action is in response to Amendments filed on 01/30/2009.

Claims 11-16 have been amended.

Claim 19 is new.

Claims 11-19 are pending and considered with Examiner's Amendment as stated herein.

Response to Amendment

2. In view of Examiner's Amendment **Claim 11-18** rejection under 35 U.S.C. 101 is withdrawn.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 03/09/2009 is being considered by the examiner. Signed and dated copy is attached to this Office Action.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview and corresponding e-mail by Applicant's Attorney Juan Carlos A. Marquez on 04/22/2009.

The claims will be amended as follows:

Claim 11:

11. (Currently Amended) A search system implemented on a computer network having a plurality of computer processor for distributed processing of web services, comprising:

a portal server for serving as a portal of a composite service requested by a client;

a group of service servers for providing more than two element services organized in a hierarchical structure for providing the composite service;

a search broker for searching for a service server providing an element service, the search broker being connected with the client via the portal server and connected with the group of service servers;

a policy database for holding policy information about service contents requested by the client;

a policy management server for searching for policy information in the policy database connected with the policy management server in response to a request by the search broker;

a registry management server for holding contents of element services provided by the service servers, the registry management server being connected with a registry database, wherein

the search broker searches for a service server that provides an element service in accordance with a search request by the portal server or a service server among the group of service servers, and inquires policy information from policy management server,

the policy management server extracts the policy information from the policy database and sends the extracted policy information to the search broker,

and

the search broker inquires from the registry management server information regarding the service server that provides an element service in accordance with the search request, extracts from the registry database the information regarding the service server that provides an element service in accordance with the search request, and sends to the search broker the information regarding the service server that provides an element service in accordance with the search request,

wherein the portal server receives a request of the composite service from the client, requests the search broker to search for a service server matching with an element service in a first stage structuring the composite service, obtains information about the service server matching with the element service in the first stage structuring the requested composite service from the search broker, and

requests the element service from the service server matching with the element service in the first stage structuring the requested composite service, and the service server matching with the element service in the first stage provides the element service in the first stage,

wherein each service server which provides an element service requests a search for a service server matching with an element service in a next stage structuring the requested composite service to the search broker, obtains information about the service server matching with the element service in the next stage structuring the requested composite service from the search broker, and requests the element service in the next stage structuring the requested composite service to the service server matching with the element service in the next stage structuring the requested composite service, and

the service server matching with the element service in the next stage structuring the requested composite service carries out the element service in the next stage structuring the requested composite service and sends a result of the element service in the next stage to the service server which requested the element service in the next stage, and

wherein the service server matching with the element service in the first stage sends a result of the composite service to the portal server.

Claim 13:

13. (Currently Amended) A search system implemented on a computer network having a plurality of computer processor for distributed processing of web services, comprising:

a portal server for serving as a portal of a composite service requested by a client;

a group of service servers for providing more than two element services organized in a hierarchical structure for providing the composite service;

a search broker for searching for a service server providing an element service, the search broker being connected with the client via the portal server and connected with the group of service servers;

a policy database for holding policy information about service contents requested by the client;

a policy management server for searching for policy information in the policy database connected with the policy management server in response to a request by the search broker;

a registry management server for holding contents of element service provided by the service servers, the registry management server being connected with a registry database,

wherein the portal server receives a request of the composite service from the client,

wherein the portal server requests the search broker to search for a server matching with an element service in a first stage structuring the requested composite service,

wherein the portal server obtains information about the service server matching with element service in the first stage structuring the requested composite service from the search broker, and requests the element service from

the service server matching with the element service in the first stage structuring the requested composite service,~~;~~ and

the service server matching with element service in the first stage structuring the requested composite service,

wherein each service server which provides an element service requests a search of a service server matching with an element service in a next stage structuring the requested element service to the search broker, obtains information about the service server matching with the element service in the next stage structuring the requested composite service from the search broker, and requests the element service to the service server matching with the element service in the next stage structuring the requested composite service,

wherein the service server matching with the element service in the next stage structuring the requested composite service carries out the element service in the next stage and sends a result of the element service in the next stage to the service server which requested the element service in the next stage, and

wherein the service server matching with the element service in the first stage sends a result of the composite service to the portal server.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

Examiner has carefully considered Amendment dated 01/30/2009 and reviewed all pending **Claims 11-19.**

The current application is directed towards services such as Web Services, for distributed processing by a plurality of computers (it is implied that computers do have processor for processing and executing services) connected to a computer network, such as the Internet, a client server system is generally used. The portal server 101 requests the search broker 107 to search for an

element service providing server that meets the user's policy, and carries out service by executing the process to call the element service server recursively, composite service can be realized. System of searching web services, where element services of a composite service are organized in a hierarchical structure comprising more than two layers, each element service provided by a service server in each layer is obtained from each service server in a hierarchical manner. However, policy information is managed using a search broker and a policy management server while the policy information is not open to the service servers. Accordingly, it can be prevented from leaking the policy information through the service servers structured in multiple layers.

Independent Claims 11and 13 disclose search system comprising: portal server for serving as a portal of a composite service requested by client;

a group of service servers for providing more than two element services organized in a hierarchical structure for providing the composite service; a search broker for searching for a service server providing an element service, the search broker being connected with the client via the portal server and connected with the group of service servers; a policy database for holding policy information about service contents requested by the client; a policy management server for searching for policy information in the policy database connected with the policy management server in response to a request by the search broker; a registry management server for holding contents of element services provided by the service servers, the registry management server being connected with a registry

database, wherein

the search broker searches for a service server that provides an element service in accordance with a search request by the portal server or a service server among the group of service servers, and inquires policy information from policy management server, the policy management server extracts the policy information from the policy database and sends the extracted policy information to the search broker, and the search broker inquires from the registry management server information regarding the service server that provides an element service in accordance with the search request, extracts from the registry database the information regarding the service server that provides an element service in accordance with the search request, and sends to the search broker the information regarding the service server that provides an element service in accordance with the search request,

wherein the portal server receives a request of the composite service from the client, requests the search broker to search for a service server matching with an element service in a first stage structuring the composite service, obtains information about the service server matching with the element service in the first stage structuring the requested composite service from the search broker, and requests the element service from the service server matching with the element service in the first stage structuring the requested composite service, and the service server matching with the element service in the first stage provides the element service in the first stage,

wherein each service server which provides an element service requests a

search for a service server matching with an element service in a next stage structuring the requested composite service to the search broker, obtains information about the service server matching with the element service in the next stage structuring the requested composite service from the search broker, and requests the element service in the next stage structuring the requested composite service to the service server matching with the element service in the next stage structuring the requested composite service, and

the service server matching with the element service in the next stage structuring the requested composite service carries out the element service in the next stage structuring the requested composite service and sends a result of the element service in the next stage to the service server which requested the element service in the next stage, and wherein the service server matching with the element service in the first stage sends a result of the composite service to the portal server.

One of the prior art of records, Hutsch, concerns an approach for portal system for providing requested content to clients, A network portal system includes a web-top manager and a universal content broker system. The web-top manager is configured to receive a content request from a user device, where the content request includes a content provider identifier. The universal content broker system is coupled to the web-top manager. The universal content broker system includes a plurality of content providers. Each content provider in the plurality of content providers is associated with a different content provider

identifier. Also, each content provider accesses content having a different raw data format. A universal content broker is coupled to the web-top manager and to the plurality of content providers. Upon the receipt of the content request from the web-top manager, the universal content broker passes the request to a content provider in the plurality of content providers that is associated with the content provider identifier.

Hutsch shows that the universal contents broker 113 obtains contents from universal content providers 331 in accordance with structural information stored in the configuration server and information of client.

Hutsch is silent to or suggest obtaining in a hierarchical manner contents organized in a hierarchical structure comprising more than two layers.

One of another prior art of records, Suzuki discloses, An information processing system that can create a page easily by the use of contents disclosed from information disclosing servers. A content storing section stores contents to be provided. In this information processing system, additional information storing section stores additional information consisting of information indicating the respective attributes of contents stored in the contents storing section and relations among the contents. An additional information obtaining section obtains additional information from an information disclosing server. Additional information storage section stores additional information obtained. An editing section edits additional information stored in the additional information storage section according to an administrator's intention or a user's taste. A display data creating section creates display data for displaying a page from additional

information stored in the additional information storage section at the request of a client.

Suzuki is also silent to or suggests obtaining in a hierarchical manner contents organized in a hierarchical structure comprising more than two layers.

Upon an updated search of the prior art, no significant sources were located that teach or suggest, " obtaining in a hierarchical manner contents organized in a hierarchical structure comprising more than two layers." in combination with all of the claim limitations of each independent claim.

Thus the prior art of record neither render nor anticipate the claimed invention.

Therefore, all pending claims are allowed.

Conclusion

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muktesh G. Gupta whose telephone number is 571-270-5011. The examiner can normally be reached on Monday-Friday, 8:00 a.m. -5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on 571-272-3922.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MG

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444